

REMARKS

Claims 1-39 are pending in the above-referenced patent application. All of the claims were rejected. Claims 1-2, 6-15, 19-28 and 32-39 were rejected under 35 USC 102(e) as being anticipated by USPN 5,887,193 to Takahashi et al. ("Takahashi"). Claims 3-5, 16-18 and 29-31 were rejected under 35 USC 103(a) as being unpatentable over Takahashi in view of USPN 6,466,233 to Mitani.

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Rejection of Claims Under 35 U.S.C. 102(e)

Rejection of Claims 1-2, 6-15, 19-28 and 32-39 under 35 USC 102(e) as being anticipated by Takahashi is respectfully traversed because Takahashi does not disclose all of the limitations of the claims.

For example, as per **Claim 1**, in col. 17, line 57 to col. 18, line 7 (relied on by the Patent Office), Takahashi does not disclose a method for providing a user interface for controlling devices that are currently connected to a network, the method comprising the steps of obtaining device information from devices currently connected to the network and "generating a user interface description ... based at least on the obtained information, the user interface description

... including at least one reference associated with the device information in each of said devices currently connected to the network,” as required by Claim 1.

In that passage, Takahashi only mentions that:

As described above, in accordance with the above-described embodiment, only by connecting a multimedia device to a multimedia controller via a LAN, the multimedia device delegate object required to manipulate the multimedia device is automatically generated in the multimedia controller. Further, the control panel required to manipulate the multimedia device is automatically displayed on the display picture of the multimedia controller, and if a user manipulates the control panel, an appropriate message is sent to a controller object of the multimedia device so that a desired manipulation can be performed. The information required to generate the multimedia device delegate object required to manipulate the multimedia device is obtained from a multimedia device delegate object description file read from the multimedia device. Accordingly, the multimedia controller needs only to have a basic class library, and does not need to have information about a specific multimedia device.

There is no mention of generating a user interface description based at least on the obtained information, the user interface description including at least one reference associated with the device information in each of said devices currently connected to the network, as claimed. By contrast, in Takahashi, when a multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel.

As explained in further detail below, Takahashi's device delegate object does not generate a user interface description that includes at least one reference associated with the

device information in each of said devices currently connected to the network. Takahashi's multimedia controller transfers the device delegate object description file from the multimedia device and uses the transferred information to build a control panel without generating any kind of a user interface description (col. 9, line 60 to col. 10, line 5; col. 11, lines 29-38). Whereas, in the claimed invention herein, references are included in the user interface description, wherein each reference refers to the user interface data of a device connected to the network. The references are later used to obtain information from the corresponding devices to generate corresponding user interfaces.

Takahashi, FIG. 14 shows a state in which a digital VTR represented as an object has not yet been connected to the multimedia controller. Takahashi (col. 12, lines 27-53) explains that: "As shown in FIG. 14, reference numeral 203 denotes the digital VTR, and a digital, VTR object 206 is resident in the digital VTR 203 and functions as a digital VTR which is identified as an object by the other multimedia devices provided on the LAN 4. The digital VTR object 206 includes three objects. A digital VTR controller object 207 executes hardware control of the digital VTR 203.... The digital VTR delegate object description file 210 includes a digital VTR control panel object description part 211 which describes the specifications of a manipulation panel for the digital VTR 203 and a digital VTR data input/output delegate object description part 212 which describes the specifications of a digital VTR data input/output delegate object which serves as a delegate to input or output data to or from the digital VTR 203."

Takahashi, FIG. 18 shows a state in which the digital VTR is connected to the LAN. Takahashi (col. 13, lines 23-35) explains that: “Referring to FIG. 18, a digital VTR delegate object 220 is generated in the multimedia controller 1 when the digital VTR 203 is connected to the LAN 4, and functions as the delegate of the digital VTR 203 in the multimedia controller 1. The digital VTR delegate object 220 includes a digital VTR control panel object 221 which functions as a control panel of the digital VTR 203, a digital VTR data input delegate object 222 which functions as the delegate of the digital VTR data input object 208 during inputting of data, and a digital VTR data output delegate object 223 which functions as the delegate of the digital VTR data output object 209.”

Takahashi then states that when the multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel. Specifically, Takahashi (col. 13, line 36 to col. 14, line 27; FIGS. 16-21) explains that: “... the system director object 205 recognizes the connection to the digital VTR 203 Then, the system director object 205 loads the digital VTR delegate object description file 210 from the digital VTR 203 Then, the system director object 205 generates the digital VTR delegate object 220 in the multimedia controller 1 on the basis of the digital VTR delegate object description file 210 The resultant state of connection is shown in FIG. 18. Then, the digital VTR delegate object 220 displays the icon display 229 of the digital VTR 203 on the display picture 228 of the multimedia controller 1 Subsequently, the user can use the digital VTR 203 via the digital VTR delegate object 220

provided in the multimedia controller 1 by manipulating the digital VTR 203 on the basis of the manipulation picture displayed on the basis of the digital VTR control panel object 221 of the multimedia controller 1 FIG. 19 shows the icon display 229 to be displayed when the digital VTR 203 is connected to the LAN 4. FIG. 20 shows a default display picture graphically displayed by the digital VTR control panel object 221 FIG. 21 is a view showing the correspondence between the classes to which individual objects belong and the constituent elements of the digital VTR control panel object 221. The classes to which the respective basic constituent elements belong are defined in the class library 1081 (refer to FIG. 9) in advance, and are held in the multimedia controller 1.”

Therefore, clearly, there is no mention of generating a user interface description based at least on the obtained information, the user interface description including at least one reference associated with the device information in each of said devices currently connected to the network, as claimed. In Takahashi, when a multimedia device is connected to the LAN, the controller obtains a device delegate object description file from the multimedia device to generate a device delegate object that provides a control panel. The device delegate object does not generate a user interface description that includes at least one reference associated with the device information in each of said devices currently connected to the network. The multimedia controller in Takahashi reads the device delegate object description file from the multimedia device once (FIG. 18) and then uses the transferred information in the controller to build a control panel. By contrast to the claimed invention, there is no reference from the transferred

delegate object 220 in the controller 1 back to the delegate object description file 210 in the VTR device 203. Nor is there a need for such a reference because all the information needed to create the control panel for the VTR 203 is available to the controller 1 without need to refer back to the VTR 203.

This is clear because Takahashi states that: “FIG. 21 is a view showing the correspondence between the classes to which individual objects belong and the constituent elements of the digital VTR control panel object 221. The classes to which the respective basic constituent elements belong are defined in the class library 1081 (refer to FIG. 9) in advance, and are held in the multimedia controller 1” (col. 14, lines 18-17). However, in the claimed invention, first references are included in the user interface description, wherein each reference refers to the user interface data of a device connected to the network. Then, the references are later used to obtain information from the corresponding devices to generate corresponding user interfaces.

Even if Takahashi can be somehow construed to provide a user interface description, Takahashi does not disclose that such a user interface description includes one or more references associated with the device information of one or more devices currently connected to the network, as required by Claim 1. Takahashi does not teach the concept of using references in the user interface description, wherein the references provide access to information stored in devices connected to the network. As such, according to the claimed invention herein, rather

than initially transferring the user interface data contained in each network device and storing each device's transferred user interface data in a controller, references are included in the user interface description which refer to the user interface data of a device connected to the network. When the user interface data of a particular device is needed (e.g., for display to a user for command and control), then a reference in the general user interface description, corresponding to that particular device, is used to access that particular device's user interface data for display to a user, allowing command/control of the particular device via that user interface.

Further, in col. 18, line 8 to col. 20, line 8 (or elsewhere) Takahashi does not disclose displaying one or more user interfaces each based on one of said one or more user interface descriptions, on one or more devices connected to the network capable of displaying a user interface, for user control of said devices that are currently connected to the network, as required by Claim 1. In that passage, Takahashi explains how input and output objects 208, 209 are transferred from the VTR 203 to the controller 1 as objects 222 and 223, to generate provide input/output panels for the VTR 203, much the same way the control panel discussed above. By contrast, according to Claim 1 herein, user interface descriptions are generated independently by several network devices such as network devices capable of displaying user interfaces. Then different user interfaces are displayed on different network devices based on different user interface descriptions. Generating a user interface in each such device rather than generating a central user interface, allows each such device to show its own device icon/text preferentially in its user interface. Therefore, for at least these reasons, rejection of Claim 1 should be withdrawn.

As per Claim 2, Takahashi does not disclose the steps of, in each device: using each reference in the corresponding user interface description to access the associated information in each associated device, and generating the user interface including device data corresponding to each associated device using the accessed information in each associated device, and displaying the user interface on said device capable of displaying a user interface, as required by Claim 2.

In rejecting Claim 2, the Patent Office relies on Takahashi col. 18, line 8 to col. 20, line 8; and col. 17, line 57 to col. 18, line 7. However, as discussed above, Takahashi does not teach generating a user interface description, nor generating a user interface description including one or more references associated with the device information of one or more devices currently connected to the network. Neither in the above passage nor elsewhere, does Takahashi disclose using each reference in a user interface description to access the associated information contained in a corresponding device to generate, and then display, a user interface for that device. As noted, Takahashi mentions reading a delegate object description files from a multimedia device, and using the transferred file and a class library in a multimedia controller to generate a control panel. However, Takahashi does not teach using a reference in a corresponding user interface description to access the associated information in each device.

Further, Takahashi does not disclose that each multimedia device has device information contained in that device, wherein that device information is then accessed using references in a user interface description that is generated in another device such as the multimedia controller. There is no reference to device information in Takahashi, inherent or otherwise, because the delegate object description file is read from the multimedia device by query, rather than via a reference (such as an address) pointer that provides direct access to such information in individual devices. Therefore, at least for these reasons, and the reasons provided above in relation to Claim 1, rejection of Claim 2 should be withdrawn.

As per Claim 6, for the above reasons, Takahashi does not disclose connecting a client device to the network capable of displaying a user interface, and displaying a user interface on the client device using the references in a user interface description, for controlling devices that are currently connected to the network, as required by Claim 6. Further, Takahashi is directed to a control system comprising a plurality of peripheral devices represented as objects, and a controller connectable to the plurality of peripheral devices via a common communication line for unitarily controlling the plurality of peripheral devices. The controller is arranged to be connected to an arbitrary number of peripheral devices selected from among the plurality of peripheral devices, read control information stored in the arbitrary number of peripheral devices via the communication line into a predetermined memory area of the controller in a predetermined format so that the controller can control the arbitrary number of peripheral devices (Abstract). As such, only the controller device can perform displaying a controller panel. The

controller device is statically programmed as a dedicated machine for display of control panels. Whereas, the claimed invention provides for connecting at least one client device to the network capable of displaying a user interface and displaying a user interface on the client device using the references in a user interface description, for controlling devices that are currently connected to the network.

Despite the Patent Office's characterization, from the above passage it is clear that in Takahashi's example, when a new device (e.g., multimedia device) is connected to the network, a user interface for the new device cannot be displayed on the newly connected device itself. By contrast, Claim 6 herein provides connecting a client device to the network capable of displaying a user interface, and the displaying a user interface on the client device. Further, Takahashi does not disclose displaying a user interface on the client device using the references in a user interface description, for controlling devices that are currently connected to the network, as required by Claim 6. If the Patent Office disagrees, Applicants respectfully request that the Patent Office set forth detailed reasoning and support therefore. As such, for at these reasons, and reasons provided above in relation to Claims 1-2, rejection of Claim 6 should be withdrawn.

As per Claim 7, it was rejected for similar reasons as rejection of Claims 1 and 2. For reasons described above in relation to Claims 1 and 2, Takahashi does not disclose that the device information in each device further includes a user control interface description for user interaction with the device, and upon detecting user selection of a device from one of said user

interfaces, accessing and then displaying the control interface description in the corresponding device for user command and control of the device, as required by Claim 7. As such, rejection of Claim 7 should be withdrawn.

As per Claim 8, it was rejected for similar reasons as rejection of Claims 1 and 2. For reasons described above in relation to Claims 1 and 2, Takahashi does not disclose generating each user interface description such that the reference in that user interface description provides access to at least the information in each corresponding device, as required by Claim 8. As such, rejection of Claim 8 should be withdrawn.

As per Claim 9, it was rejected for similar reasons as rejection of Claims 1 and 2. For reasons described above in relation to Claims 1 and 2, Takahashi does not disclose generating each user interface description such that the user interface description further includes device data corresponding to each device based on the information obtained from each device, as required by Claim 9. As such, rejection of Claim 9 should be withdrawn.

As per Claim 10, Takahashi (col. 34, lines 62-67, relied upon by the Patent Office), does not disclose that the device information in each device includes device identification information. Indeed, in that passage, Takahashi states that the controller assigns IDs to the multimedia devices, and certainly there is no mention of device identification information as claimed herein.

Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2, rejection of Claim 10 should be withdrawn.

As per Claim 11, it was rejected for similar reasons as rejection of Claims 1 and 2. For reasons described above in relation to Claims 1 and 2, Takahashi does not disclose that the device information in each device includes a user control interface description for user interaction with the device, as required by Claim 11. Further, as discussed, Takahashi does not disclose the steps of generating any type of user interface description according to the claimed invention. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2, rejection of Claim 11 should be withdrawn.

As per Claim 12, it was rejected for similar reasons as rejection of Claims 1 and 2. For reasons described above in relation to Claims 1 and 2, Takahashi does not disclose generating each user interface description such that each reference in the user interface description provides access to at least the user control interface description in each corresponding device, detecting user selection of a device from one of said user interfaces, and using a reference in the user interface description of the selected device to access the control interface description in the device and then display the control interface description as a control user interface for user command and control of the device, as required by Claim 12. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2 and 11, rejection of Claim 12 should be withdrawn.

As per Claim 13, as discussed above in relation to Claims 1-2, in col. 13, lines 36-64 (relied upon by the Patent Office) Takahashi does not disclose generating the user interface description such that the user interface description further includes device data corresponding to each device based on the information obtained from each device, the device data providing references to the user control interface description in each device, providing access to control interface description in the corresponding device, as required by Claim 13. As discussed, there is no user interface description including references to device information generated in Takahashi. Therefore, for at least these reasons, and the reasons provided above in relation to Claims 1-2 and 11-12, rejection of Claim 13 should be withdrawn.

Independent Claim 14 was rejected for substantially the same reasons that the rejection of Claim 1. The rejection of Claim 14 is respectfully traversed for the reasons given above in relation to Claim 1. Further, Applicant believe that Takahashi does not disclose an agent in a device for obtaining information and generating a user interface description as required by Claim 14. Therefore, for at least these reasons, rejection of Claim 14, and all claims dependent therefrom, should be withdrawn.

Claims 15, 19, 20, 21, 22, 23, 24, 25 and 26 were rejected for substantially the same reasons as rejection of Claims 2, 6, 7, 8, 9, 10, 11, 12 and 13. The rejection of Claims 15, 19, 20, 21, 22, 23, 24, 25 and 26 is respectfully traversed for the reasons given above in relation to

Claims 1, 2, 6, 7, 8, 9, 10, 11, 12 and 13. Further, Takahashi does not disclose use of agents as claimed. Therefore, rejection of Claims 15, 19, 20, 21, 22, 23, 24, 25 and 26 should be withdrawn.

Independent **Claim 27** was rejected for substantially the same reasons that the rejection of Claim 1. The rejection of Claim 27 is respectfully traversed for the reasons given above in relation to Claim 1. Further, Applicant believe that Takahashi does not disclose an agent in multiple devices for obtaining information and generating a user interface description as required by Claim 27. Therefore, for at least these reasons, rejection of Claim 27, and all claims dependent therefrom, should be withdrawn.

Claims 28, 32, 33, 34, 35, 36, 37, 38 and 39 were rejected for substantially the same reasons as rejection of Claims 15, 19, 20, 22, 23, 24, 25 and 26. The rejection of Claims 28, 32, 33, 34, 35, 36, 37, 38 and 39 is respectfully traversed for the reasons given above in relation to Claims 14, 15, 19, 20, 22, 23, 24, 25 and 26. Therefore, rejection of Claims 28, 32, 33, 34, 35, 36, 37, 38 and 39 should be withdrawn.

Rejection of Claims Under 35 U.S.C. 103 (a)

Rejection of Claims 3-5, 16-18 and 29-31 under 35 USC 103(a) as being unpatentable over Takahashi in view of Mitani is respectfully traversed because the references, alone or in combination, do not disclose all of the limitations of the claims.

As per Claims 3, 4 and 5, as the Patent Office also states, Takahashi does not disclose generating the user interface description by associating a hyper-text link with the device information of each of the devices connected to the network, as required by Claim 3. As the Patent Office further acknowledges, Takahashi does not disclose that the information in each device comprises an HTML page contained in that device, as required by Claim 4. Further, As the Patent Office further acknowledges, Takahashi does not disclose displaying the user interface on a browser on a device capable of displaying a user interface, as required by Claim 5.

However, the Patent Office concludes that Mitani, col. 6, line 4 to col. 7, line 12, discloses such limitations of Claims 3, 4 and 5. Further, the Patent Office proposes a modification of Takahashi to include hyper-text link HTML pages that allow user interaction and control of devices via the Internet.

Rejection of the claims is respectfully traversed because the references, alone or in combination, do not teach or suggest the claimed limitations. No prima facie case of obviousness has been established.

Mitani, col. 6, line 4 to col. 7, line 12, (relied upon by the Patent Office), does not disclose generating a user interface description nor does Mitani disclose generating such a user interface description by associating a hyper-text link with the device information in each of said

devices currently connected to the network, as required by Claim 3. Indeed, Mitani only mentioned that HTML-form GUI data are received by a control unit 11 from a TV receiver 5 upon request. There is no teaching in Mitani of associating a hyper-text link with the device information of each of said devices currently connected to the network.

One of ordinary skill in the art would not look to combine Takahashi and Mitani. Nor is there a motivation or suggestion in either reference to do so. Even if Takahashi and Mitani are combined as suggested by the Patent Office, the result does not teach or suggest the claimed invention. Further, such a combination would simply mean the multimedia controller of Takahashi receiving HTML data from devices. This provides no advantage for the purpose of Takahashi because the controller is dedicated to control the devices, and remote control via the Internet is not needed nor possible. Takahashi is simply not concerned with, nor is appropriate for, the Patent Office's proposed modification to allow Takahashi's devices to interface with Internet, from service providers, via HTTP protocol. At any rate, such a modified system does not teach the disclose of Claim 3. Indeed, such a modified system teaches away from the claimed invention herein.

As per Claim 4, Mitani does not disclose that the information in each device comprises an HTML page contained in that device. Further, as discussed, there is no motivation or use in combining Takahashi and Mitani, and such a combination does not teach the claimed invention herein. As such, rejection of Claim 4 should be withdrawn.

As per Claim 5, Mitani does not disclose displaying the user interface on a browser on a device connected to the network, capable of displaying a user interface, as required by Claim 5. Further, for the reasons above, one of ordinary skill in the art would not look to the cited references, or to combine them, to achieve the claimed invention herein. As such, rejection of Claim 5 should be withdrawn.

Claims 16 and 29 were rejected for the same reasons as Claim 3. The rejection of Claims 16 and 29 is respectfully traversed for the reasons given above in relation to Claim 3.

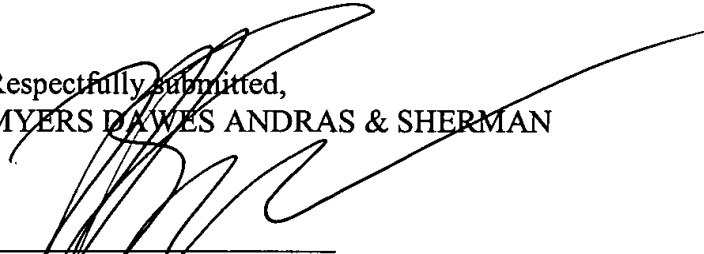
Claims 17 and 30 were rejected for the same reasons as Claim 4. The rejection of Claims 17 and 30 is respectfully traversed for the reasons given above in relation to Claim 4.

Claims 18 and 31 were rejected for the same reasons as Claim 5. The rejection of Claims 18 and 31 is respectfully traversed for the reasons given above in relation to Claim 5.

CONCLUSION

Accordingly, Applicants respectfully request that the rejections of the claims be withdrawn, and the claims, be allowed for at least the aforementioned reasons. If it is believed that a telephone interview will help further the prosecution of this case, Applicants respectfully request that the undersigned attorney be contacted at the listed telephone number.

Respectfully submitted,
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